

# The Natural Presidio

National Park Service  
U.S. Department of the Interior

Presidio of San Francisco  
Golden Gate National Recreation Area



To see a world in a grain of sand,  
And a heaven in a wild flower,  
Hold infinity in the palm of your hand,  
And eternity in an hour

—William Blake

## Nature in the City?



Spanish and Mexican era grazing and farming transformed the natural Presidio. Painting by Beechey, 1826



By the early 1900s buildings and forest began to blanket the Presidio. Bob Bowen Collection

The natural history of the Presidio is a story both of change and constancy.

The lands at the Golden Gate were forged over millennia by powerful geological events and shaped by wind and fog. Grasslands, sand dunes, and woodlands were rimmed with saltwater marshes, lakes, and creeks. This environment supported a mosaic of plant communities and diverse wildlife, including grizzly bears and tule elk.

Over time, people shaped the wilds, from the Ohlone Indians who used fire to clear brush, to the successive Spanish, Mexican, and American settlers who established a presidio, or fort, at the bay. The greatest transformation took place in the 19th and 20th centuries as the U.S. Army expanded its military post with roads, batteries and bunkers, homes, and even a planted forest. In fact, the existence of natural areas of the

Presidio owes to its former status as an Army post, which prevented the kind of urbanization seen elsewhere in San Francisco.

Despite sweeping changes to its landscape, rare gems of San Francisco's natural history endure in the Presidio. As the park evolves today to welcome park activities, its remnant wild natural areas are being restored and shared with visitors. This guide describes the conditions that created the Presidio's unique plant and wildlife treasures, and illustrates jewels of the park's natural heritage.



## A Surprising Diversity of Life...And A Refuge for Rarities

Above left to right:  
The Presidio hosts a rich array of insects including the West Coast Lady, the western fence lizard and other reptiles, over 200 species of birds like the colorful Wilson's warbler and the locally rare gray fox.



The Presidio's plant and wildlife diversity is largely a result of natural realities above and below: weather and geology.

San Francisco is known for its unique weather patterns and changeable Mediterranean climate. Temperate wet winters typically occur between November and April. Summer dry spells can last up to seven months, with moisture coming only with cool ocean fog. Coastal hills and valleys create many microclimates. Within an hour on the Presidio, you can walk through sheltered woodlands, moist creek corridors, windy coastal bluffs, and warm dunes. These conditions promote amazing plant diversity.

The Presidio's main soil types include serpentine and sand. Serpentinite, California's state rock, is green-gray, smooth, and scaly, evoking images of its namesake. It forms deep below the earth's crust and is pushed

to the surface along faults. Though serpentine soils are poor in nutrients and high in toxic metals, the endangered Presidio clarkia and Raven's manzanita, among others, have adapted and thrive. Sand dunes that are dry, nutrient poor, and ever-shifting with the wind are home to rare species such as the San Francisco lessingia and dune gilia that have adapted to survive in these conditions.



Presidio clarkia (left) lives only on serpentine soils and San Francisco lessingia (right) requires dunes.

